

Application No. 10/731,570
Reply to Office Action of February 2, 2007

Docket No.: DP-309093

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A receiver, comprising:
 - a channel decoder select circuit;
 - a plurality of communication channels that receives wireless information from channel demodulators, said plurality of communication channels in communication with respective channel decoder circuits, said plurality of channel decoder circuits in communication with the channel decoder select circuit;
 - at least one maximum ratio combiner circuit that receives the wireless information from the plurality of communication channels, wherein the output of the maximum ratio combiner is communicated to a forward error correction circuit, the output of which is communicated to the channel decoder select circuit;
 - a pseudo bit error measurement feedback signal communicated to the maximum ratio combiner from one of the plurality of channel decoder circuits; and
 - a switch connected at the input of the forward error correction circuit ~~a first channel decoder circuit~~ that switches between the output of the maximum ratio combiner circuit and a first communication channel of the plurality of communication channels.
2. (Original) The receiver according to Claim 1, wherein the plurality of channel decoder circuits are forward error correction circuits.
3. (Original) The receiver according to Claim 1, wherein the channel decoder select circuit is a forward error correction select circuit.
4. (Original) The receiver according to Claim 3, wherein the output of the forward error correction select circuit is communicated to a source decoder that converts the wireless information to audio.
5. (Original) The receiver according to Claim 1, wherein the wireless information is a satellite digital audio radio services signal and a terrestrial signal.

Application No. 10/731,570
Reply to Office Action of February 2, 2007

Docket No.: DP-309093

6. (Cancelled)

7. (Previously Presented) The receiver according to Claim 1, further comprising a feedback signal communicated to the input of the first channel decoder circuit.

8. (Original) The receiver according to Claim 7, wherein the feedback signal is an uncorrectable error detection signal from a Reed Solomon Decoder.

9. (Currently Amended) A receiver comprising:

a channel decoder select circuit;

a plurality of communication channels that receives wireless information from channel demodulators; ~~said plurality of communication channels in communication with respective channel decoder circuits, said plurality of channel decoder circuits in communication with the channel decoder select circuit;~~

at least one maximum ratio combiner circuit that receives the wireless information from the plurality of communication channels, wherein the output of the maximum ratio combiner is communicated to a forward error correction circuit, the output of which is communicated to the channel decoder select circuit; and

a pseudo bit error measurement feedback signal communicated to the maximum ratio combiner ~~from one of the plurality of channel decoder circuits;~~

wherein at least one of the wireless signals received by the plurality of communication channels is processed by a forward error correction circuit ~~one of the plurality of channel decoder circuits~~, an encoder, a hard detection circuit, a pseudo bit error rate circuit, and a weighting algorithm.

10. (Cancelled)

11. (Cancelled)

Application No. 10/731,570
Reply to Office Action of February 2, 2007

Docket No.: DP-309093

12. (Currently Amended) The receiver according to Claim 2-16, wherein the maximum ratio combiner includes a weighting algorithm executed by a multiplier.

13. (Previously Presented) A method for finding wireless satellite signals that minimizes errors in a receiver system, comprising the steps of:

- providing a plurality of signals from a plurality of channel demodulators;
- receiving the plurality of signals at an input of a maximum ratio combiner;
- combining said plurality of signals to generate an output signal from the maximum ratio combiner such that the output signal of the maximum ratio combiner is communicable with an input of a first forward error correction circuit;

- receiving at least a first signal from the plurality of signals from a first communication channel of the plurality of channels at the an input of at least a second forward error correction circuit;

- providing an output signal from at least the first forward error correction circuit and the at least a second forward error correction circuit to a forward error correction select circuit, wherein said forward error correction select circuit determines an output signal that contains a minimum number of decoded errors;

- developing a pseudo bit error measurement feedback signal; and

- providing the pseudo bit error measurement feedback signal communicated to the maximum ratio combiner from the second forward error correction circuit.

14. (Previously Presented) The method according to Claim 13 further comprising the step of providing a switch at the input of the first forward error correction circuit.

15. (Previously Presented) The method according to Claim 14 further comprising the step of switching between the output of the maximum ratio combiner and the at least a first signal.

Application No. 10/731,570
Reply to Office Action of February 2, 2007

Docket No.: DP-309093

16. (Previously Presented) A receiver, comprising:
- a plurality of convolutional decoders in communication with respective convolutional encoders, said convolutional decoders being configured to receive wireless signals;
 - a plurality of pseudo bit error circuits in communication with said plurality of convolutional encoders and configured to receive said wireless signals;
 - a maximum ratio combiner configured to receive output signals from each of said plurality of convolutional decoders and each of said plurality of pseudo bit error circuits; and
 - a reed-solomon decoder configured to process the output of the maximum ratio combiner.
17. (Previously Presented) The receiver of claim 16, wherein said wireless signals include a satellite signal and a terrestrial signal.
18. (Currently Amended) A receiver, comprising:
- a plurality of communication channels configured to receive wireless signals;
 - at least one maximum ratio combiner circuit in communication with a forward error correction circuit, the output of which is communicated to a channel decoder select circuit; and
 - a plurality of channel decoder circuits in communication with said channel decoder select circuit, wherein at least one of said plurality of channel decoder circuits is configured to provide a pseudo bit error measurement feedback signal to said maximum ratio combiner circuit;
- wherein said at least one maximum ratio combiner circuit ~~and said plurality of channel decoder circuits are~~ is configured to receive said wireless signals from each of said plurality of communication channels and wherein said each of the plurality of channel decoder circuits are configured to receive said wireless signals from each of said plurality of communication channels.
19. (Previously Presented) The receiver of claim 18, wherein said wireless signals include at least one satellite signal and a terrestrial signal.